2. IN THE CLAIMS

Cancel claims 18-22. Amend Claims 1,2,4,6,8,11-17, 31-35, 39-40. Add claims 41-46.

1. (Twice Amended) A method for genetic transformation of a flowering plant, said method comprising the steps of:

(a) preparing a silicon carbide fiber solution;

(b) preparing a pollen germination medium;

(c) preparing a DNA solution;

(d) mixing said silicon carbide fiber solution with said pollen germination medium and said DNA solution to form a mixture;

(e) adding fresh pollen into said mixture to form a paste;

(f) vortexing said paste for 30 to 60 seconds;

(g) applying said vortexed paste on female reproductive plant parts for pollination; and

(h) selecting for transformants.

2. (Twice Amended) The method of Claim 1, wherein the silicon carbide fibers of said silicon carbide fiber solution used in step (a) are approximately 0.1-20 μm in diameter and 1-250 μm in length.

4. (Twice Amended) The method of Claim 1 wherein the silicon carbide fiber solution prepared in step (a) comprises a sufficient amount of sterile water or solvent to make a 5% to 25% aqueous solution.

6. (Twice Amended) The method of Claim 1, wherein the pollen germination medium contains about 5% - 15% sucrose, 0.01% - 1.0% H_3BO_3, 0.01% to 1.0% $Ca(NO_3)_2 4H_2O$ at pH 5.6.

8. (Twice Amended) The method of Claim 1, wherein said DNA solution is a solution of plasmid DNA.

11. (Twice Amended) The method of Claim 1, wherein the selection of transformants is performed by looking for the phenotypic expression of a specific cloned selectable marker gene with a phenotypic expression, said cloned selectable marker gene selected from the group consisting of antibiotic resistance gene and herbicide resistance gene.

12. (Twice Amended) The method of Claim 11, wherein said selectable marker gene with a phenotypic expression is a gene regulating anthocyanin levels.

13. (Twice Amended) The method of Claim 11, wherein said selectable marker gene is a gene providing resistance to at least one antibiotic.

14. (Twice Amended) The method of Claim 11, wherein said selectable marker gene is a gene providing resistance to neomycin phosphotransferase.

15. (Twice Amended) The method of Claim 11, wherein said selectable marker gene is a gene providing resistance to kanamycin.

16. (Twice Amended) The method of Claim 11, wherein said selectable marker gene is a gene providing resistance to phosphinothricin acetyltransferase.

17. (Twice Amended) The method of Claim 1, wherein the flowering plant is maize.

31. (Amended) A method for genetic transformation of maize reproducing sexually, said method comprising the steps of:

(a) preparing a silicon carbide fiber solution;

(b) preparing a pollen germination medium;

(c) preparing a DNA solution;

(d) mixing said silicon carbide fiber solution with said pollen germination medium and said DNA solution to form a mixture;

(e) adding fresh pollen into said mixture to form a paste;

(f) vortexing said paste for 30 to 60 seconds;

(g) applying said vortexed paste on silks for pollination; and

(h) selecting for transformants.

32. (Amended) The method of Claim 31, wherein said silicon carbide fibers of said silicon carbide fiber solution used in step (a) are approximately 0.1-20 μm in diameter and 1-250 μm in length.

33. (Amended) The method of Claim 31, wherein the silicon carbide fiber solution prepared in step (a) comprises a sufficient amount of sterile water or solvent to make a 5% to 25% aqueous solution.

34. (Amended) The method of Claim 31, wherein the pollen germination medium contains about 5% - 15% sucrose, 0.01% - 1.0% H_3BO_3, 0.01% to 1.0% $Ca(NO_3)_2 4H_2O$ at pH 5.6.

35. (Amended) The method of Claim 31, wherein said DNA solution is a solution of plasmid DNA.

37. (Amended) The method of claim 31, wherein the selection of transformants is performed by looking for the phenotypic expression of a specific cloned selectable marker gene, said cloned selectable marker gene selected from the group consisting of antibiotic resistance gene and herbicide resistance gene.

39. (Amended) The method of Claim 37, wherein said selectable marker gene is a gene providing resistance to kanamycin.

40. (Amended) The method of Claim 37, wherein said selectable marker gene is a gene providing resistance to phosphinothricin acetyltransferase.

41. (New) The method of Claim 2, wherein said silicon carbide fibers are between 1-2 μm in diameter and 10-80 μm in length.

42. (New) The method of Claim 32, wherein said silicon carbide fibers are between 1-2 μm in diameter and 10-80 μm in length.

43. (New) The method of Claim 6, wherein the pollen germination medium contains about 15% sucrose, 0.018% H_3BO_3, 0.04% $Ca(NO_3)_24H_2O$ at pH5.6.

44. (New) The method of Claim 34, wherein the pollen germination medium contains about 15% sucrose, 0.018% H_3BO_3, 0.04% $Ca(NO_3)_24H_2O$ at pH5.6.

45. (New) The method of Claim 1, wherein said flowering plant is melon.

46. (New) The method of Claim 1, wherein said flowering plant is tomato.